WEST Search History

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DATE: Monday, November 29, 2004

Hide?	Set Name	Query	Hit Count
		DB=USPT; PLUR=YES; OP=ADJ	
☐	L24	E6 and HPV 18.clm.	27
☐	L23	E6 and HPV 16.clm.	45
☐	L22	E6 and HPV 16	310
☐	L21	E6 and HPV 18	165
		DB=DWPI; PLUR=YES; OP=ADJ	
☐	L20	E6 and HPV 18	10
☐	L19	E6 and HPV 16	24
		DB=USPT; PLUR=YES; OP=ADJ	
☐	L18	US-6010704-A.did.	1
☐	L17	US-6010704-A.did.	1
☐	L16	US-5919615-A.did.	1
☐	L15	US-5919615-A.did.	1
		DB=DWPI; PLUR=YES; OP=ADJ	
☐	L14	Breitburd.in.	3
		DB=EPAB; PLUR=YES; OP=ADJ	
☐	L13	WO-2004005469-A2.did.	1
☐	L12	WO-2004005469-A2.did.	1
		DB=DWPI; PLUR=YES; OP=ADJ	
☐	L11	HU Y X.in.	3
		DB=USPT; PLUR=YES; OP=ADJ	
☐	L10	HU.in. and papillomavirus	5
☐	L9	HU.in. and virus	120
☐	L8	HU.in.	2131
☐	L7	4777239.pn.	1
☐	L6	6743593.pn.	1
☐	L5	5679509.pn. and antibody	1
☐	L4	5679509.pn.	1
☐	L3	L1 and 2	1
☐	L2	L1 and 24	1
☐	L1	6783763.pn.	1

END OF SEARCH HISTORY

*Esophageal Neoplasms: VI, virology
Middle Aged
Oncogene Proteins, Viral: BI, biosynthesis
*Papillomavirus, Human: IP, isolation & purification
*Papovaviridae Infections
*Tumor Virus Infections
CN 0 (**Antibodies**, Viral); 0 (DNA, Viral); 0 (**E6** protein, Human papillomavirus type 16); 0 (Oncogene Proteins, Viral)

L9 ANSWER 4 OF 11 MEDLINE on STN
AN 96377304 MEDLINE
DN PubMed ID: 8783151
TI Detection of human papillomavirus type-16 DNA utilising microtitre-plate based amplification reactions and a solid-phase enzyme-immunoassay detection system.
AU Cavuslu S; Starkey W G; Kaye J N; Biswas C; Mant C; Kell B; Rice P; Best J M; Cason J
CS Richard Dimbleby Laboratory of Cancer Virology, Department of Virology, Rayne Institute, United Medical School, St Thomas' Hospital, London, UK.
SO Journal of virological methods, (1996 Apr 26) 58 (1-2) 59-69.
Journal code: 8005839. ISSN: 0166-0934.
CY Netherlands
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199612
ED Entered STN: 19970128
Last Updated on STN: 19970128
Entered Medline: 19961205
AB The development of a nested polymerase chain reaction (PCR) assay to **detect** low concentrations of human papillomavirus type-16 (**HPV-16**) DNA for epidemiological studies is described. The PCR utilises primers located in the E5 open reading frame, has an analytical sensitivity of 4 **HPV-16** genomes and does not produce amplicons from other common genital HPVs (types-6, -11, -18, -31 and 33). This assay was carried out in 96-well plates utilising internal primers labelled with dinitrophenol (DNP) and biotin so that amplicons can be captured onto streptavidincoated plates and detected using an alkaline phosphatase-labelled monoclonal **antibody** to DNP. The assay was effective for detecting **HPV-16** DNA in plasmids, cell-lines and, both freshly collected or archival (formalin-fixed/paraffin embedded) clinical specimens. This system is therefore suitable for epidemiological studies to identify individuals infected with **HPV-16** DNA in episomal form who may be at increased risk of developing anogenital carcinomas.
CT Check Tags: Female; Human; Support, Non-U.S. Gov't
Cervical Intraepithelial Neoplasia: PA, pathology
*Cervical Intraepithelial Neoplasia: VI, virology
Cervix Neoplasms: PA, pathology
*Cervix Neoplasms: VI, virology
DNA Primers
*DNA, Viral: AN, analysis
Evaluation Studies
Hela Cells
*Immunoenzyme Techniques
*Oncogene Proteins, Viral: GE, genetics
Papillomavirus, Human: GE, genetics
*Papillomavirus, Human: IP, isolation & purification
*Polymerase Chain Reaction: MT, methods
Sensitivity and Specificity
Tumor Cells, Cultured
CN 0 (DNA Primers); 0 (DNA, Viral); 0 (**E6** protein, Human

papillomavirus type 16); 0 (Oncogene Proteins, Viral); 0 (oncogene protein E5, human papillomavirus type 16); 0 (oncogene protein E7, human papillomavirus type 16)

L9 ANSWER 5 OF 11 MEDLINE on STN
AN 96098816 MEDLINE
DN PubMed ID: 8533490
TI [Interferon-alpha controls HPV infection in cervix epithelium]. Interferon-alpha kontrolliert die HPV-Infektion im Zervixepithel.
AU Labeit D; Labeit S; Berger M; Gallati H; Rosenberg R; Friese K
CS Universitatsfrauenklinik Mannheim.
SO Zentralblatt fur Gynakologie, (1995) 117 (11) 566-77.
Journal code: 21820100R. ISSN: 0044-4197.
CY GERMANY: Germany, Federal Republic of
DT Journal; Article; (JOURNAL ARTICLE)
LA German
FS Priority Journals; AIDS
EM 199601
ED Entered STN: 19960220
Last Updated on STN: 19960220
Entered Medline: 19960129
AB Decreased immune response is necessary for a prolonged HPV-infection and allows HPV to be virulent as an oncogene. This study shows that HPV-infection in cervical epithelium is determined by the immune system and IFN-alpha can be shown to be a prognostic parameter for the HPV-infection. The cytokines (IFN-alpha, IFN-gamma, and TNF-alpha) from stimulated peripheral blood mononuclear cells (PBMC) were measured using monoclonal IFN-**antibodies** and ELISA test. To **detect** **HPV-16**, PCR (**e6** and e7 areas) was used, followed by southern-blot of the PCR-products. In all of our patients (n = 139) no cytological change was observed in the cervical epithelium over a period of 3 years. Comparison was made between 3 groups: 1: controls (n = 89, HPV-pos. n = 6) 2: registered prostitutes without drug abuse (n = 30, HPV-pos. n = 6) and 3: HIV-infected, previous drug users (CDC II, n = 20, HPV-pos. n = 2). RESULTS: The stimulated IFN-alpha values are highest in the control collective (169 +/- 35 U/ml) and are significantly lower in the prostitutes (98 +/- 26 U/ml, $p < 0.05$) and in the HIV-infected group (49 +/- 15 U/ml, $p < 0.01$). The difference between the latter groups being significant as well ($p < 0.05$). Dividing the controls into **HPV-16** positive and **HPV-16** negative subgroups, the IFN-alpha values are significantly higher in **HPV-16** negative group (193 +/- 48 U/ml) compared to **HPV-16** positive group (38 +/- 3 U/ml, $p < 0.05$). Also in the collective of prostitutes and HIV infected patients there is a similar significant difference between the **HPV-16** positive and **HPV-16** negative patients (Prostitutes: **HPV-16** negative = 94 +/- 21 U/ml, **HPV-16** positive = 36 +/- 7 U/ml, $p < 0.05$; HIV-infected: **HPV-16** negative = 35 +/- 13 U/ml, **HPV-16** positive = 13 +/- 3 U/ml).
CT Check Tags: Female; Human; Support, Non-U.S. Gov't
AIDS-Related Opportunistic Infections: IM, immunology
Adult
*Antiviral Agents: BL, blood
*Cervix Neoplasms: IM, immunology
Cervix Uteri: VI, virology
English Abstract
Interferon Type II: BL, blood
*Interferon-alpha: BL, blood
Middle Aged
*Papillomavirus, Human: IM, immunology
*Papovaviridae Infections: IM, immunology

Prostitution
Tumor Necrosis Factor: ME, metabolism
*Tumor Virus Infections: IM, immunology
RN 82115-62-6 (Interferon Type II)
CN 0 (Antiviral Agents); 0 (Interferon-alpha); 0 (Tumor Necrosis Factor)

L9 ANSWER 6 OF 11 MEDLINE on STN
AN 95114033 MEDLINE
DN PubMed ID: 7529250
TI Comparison of peptide enzyme-linked immunosorbent assay and radioimmunoprecipitation assay with in vitro-translated proteins for detection of serum **antibodies** to human papillomavirus type 16 **E6** and E7 proteins.
AU Sun Y; Shah K V; Muller M; Munoz N; Bosch X F; Viscidi R P
CS Department of Immunology and Infectious Diseases, Johns Hopkins University School of Hygiene and Public Health, Baltimore, Maryland 21205.
NC RO1-CA56514 (NCI)
SO Journal of clinical microbiology, (1994 Sep) 32 (9) 2216-20.
Journal code: 7505564. ISSN: 0095-1137.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
(MULTICENTER STUDY)
LA English
FS Priority Journals
EM 199502
ED Entered STN: 19950217
Last Updated on STN: 19960129
Entered Medline: 19950206
AB **Antibodies** to human papilloma virus (HPV) type 16 (**HPV -16**) **E6** and E7 proteins in serum are markers for HPV-associated invasive cervical carcinoma. We compared two assays, a radioimmunoprecipitation assay with in vitro-translated **HPV-16 E6** and E7 proteins and an enzyme-linked immunosorbent assay (ELISA) with **E6** and E7 synthetic peptides, for their abilities to discriminate serologically between patients with invasive cervical cancer and controls. Among the patients, **antibody** prevalences were higher by the **E6** radioimmunoprecipitation assay (55.7%) than by the **E6** peptide ELISA (15.5%), but among the controls, they were lower by the radioimmunoprecipitation assay (1.7%) than by the **E6** peptide ELISA (5%). For E7, **antibody** prevalences among the patients were comparable by the radioimmunoprecipitation assay (43%) and the peptide ELISA (41%), but among the controls they were higher by the E7 peptide ELISA (17.4%) than by the radioimmunoprecipitation assay (4.1%). There was good agreement between the E7 radioimmunoprecipitation assay and the E7 peptide ELISA among patients but not among controls. In tests with representative sera, heat denaturation of the translated proteins resulted in a complete loss of reactivity to the **E6** protein and a marked decrease in reactivity to the E7 protein. Our study showed that the radioimmunoprecipitation assay discriminates better than the peptide ELISA between patients with invasive cervical cancer and controls and that this is related to the ability of the radioimmunoprecipitation assay to **detect** conformational epitopes.
CT Check Tags: Comparative Study; Female; Human; Support, U.S. Gov't, P.H.S.
***Antibodies, Viral: BL, blood**
Antibodies, Viral: IM, immunology
*Antigens, Viral: IM, immunology
Carcinoma: PA, pathology
Carcinoma: VI, virology
Case-Control Studies
Cervix Neoplasms: PA, pathology
Cervix Neoplasms: VI, virology

Colombia
*Enzyme-Linked Immunosorbent Assay
Epitopes: CH, chemistry
*Epitopes: IM, immunology
Heat
Neoplasm Invasiveness
*Oncogene Proteins, Viral: IM, immunology
*Papillomavirus, Human: IM, immunology
Papillomavirus, Human: IP, isolation & purification
*Papovaviridae Infections: BL, blood
Papovaviridae Infections: IM, immunology
Peptide Fragments: CS, chemical synthesis
*Peptide Fragments: IM, immunology
*Precipitin Tests
Protein Conformation
Protein Denaturation
*Radioimmunoassay
*Recombinant Fusion Proteins: IM, immunology
Sensitivity and Specificity
Spain
Translation, Genetic
*Tumor Virus Infections: BL, blood
Tumor Virus Infections: VI, virology

CN 0 (**Antibodies**, Viral); 0 (Antigens, Viral); 0 (**E6** protein, Human papillomavirus type 16); 0 (Epitopes); 0 (Oncogene Proteins, Viral); 0 (Peptide Fragments); 0 (Recombinant Fusion Proteins); 0 (oncogene protein E7, human papillomavirus type 16)

L9 ANSWER 7 OF 11 MEDLINE on STN
AN 94064167 MEDLINE
DN PubMed ID: 8244575
TI Serologic response in human papillomavirus-associated invasive cervical cancer.
AU Viscidi R P; Sun Y; Tsuzaki B; Bosch F X; Munoz N; Shah K V
CS Eudowood Division of Infectious Disease, Department of Pediatrics, Johns Hopkins University School of Medicine, Baltimore, MD.
NC R01-CA56514 (NCI)
SO International journal of cancer. Journal international du cancer, (1993 Nov 11) 55 (5) 780-4.
Journal code: 0042124. ISSN: 0020-7136.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199312
ED Entered STN: 19940201
Last Updated on STN: 19940201
Entered Medline: 19931223
AB Human papillomavirus (HPV) transforming proteins **E6** and E7 are uniformly expressed in HPV-associated cervical cancer. Our objective was to measure **antibodies** to **HPV-16 E6** and E7 proteins in cervical cancer patients using an assay which would **detect antibodies** to conformational epitopes. Serum specimens obtained from two case-control studies of HPVs and cervical cancer were tested. The studies were performed in Cali, Colombia, South America and in 9 provinces of Spain. Cases consisted of women with invasive cervical cancer associated with **HPV-16** or other HPV types and women with **HPV-16**-associated high-grade cervical intra-epithelial neoplasia (CIN-3). Controls for invasive cases and CIN-3 cases were women who had no cytologic abnormalities and who were matched for age and country of residence. Serum **antibodies** to **HPV-16 E6** and

E7 proteins were detected by radio-immunoprecipitation of in vitro translated proteins. **Antibodies** to the **E6** and E7 protein were observed among 56% and 43%, respectively, of invasive cases and 1.7% and 4.1%, respectively, of controls. **Antibodies** to either protein were detected in 72% of sera from invasive cases and 5.8% of sera from controls. High **antibody** reactivity and **antibodies** to both proteins were found almost exclusively in invasive cases. The frequency of **antibodies** to the **E6** protein and the E7 protein among CIN-3 cases did not differ significantly from the CIN-3 controls. Five women with HPV-18-associated invasive cervical cancer were negative for serum **antibody** to **HPV -16 E6** and E7 proteins. **Antibodies** to **HPV-16 E6** and E7 proteins appear to be partially virus-specific and disease state-specific markers of HPV-associated cervical cancer.

CT Check Tags: Female; Human; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.
***Antibodies, Viral: BL, blood**
Case-Control Studies
*Cervical Intraepithelial Neoplasia: IM, immunology
*Cervical Intraepithelial Neoplasia: MI, microbiology
*Cervix Neoplasms: IM, immunology
*Cervix Neoplasms: MI, microbiology
Colombia
Immunosorbent Techniques
Oncogene Proteins, Viral: IM, immunology
*Papillomavirus, Human
Spain

CN 0 (**Antibodies**, Viral); 0 (**E6** protein, Human papillomavirus type 16); 0 (Oncogene Proteins, Viral); 0 (oncogene protein E7, human papillomavirus type 16)

L9 ANSWER 8 OF 11 MEDLINE on STN
AN 93170933 MEDLINE
DN PubMed ID: 8382193
TI Serological response to **HPV 16** in cervical dysplasia and neoplasia: correlation of **antibodies** to **E6** with cervical cancer.
AU Ghosh A K; Smith N K; Stacey S N; Glew S S; Connor M E; Arrand J R; Stern P L
CS Cancer Research Campaign Department of Immunology, Paterson Institute for Cancer Research, Christie Hospital NHS Trust, Manchester, UK.
SO International journal of cancer. Journal international du cancer, (1993 Feb 20) 53 (4) 591-6.
Journal code: 0042124. ISSN: 0020-7136.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199303
ED Entered STN: 19930402
Last Updated on STN: 19930402
Entered Medline: 19930323
AB Sera from patients with cervical cancer, cervical intraepithelial neoplasia (CIN) and non-genital cancers, and from healthy individuals, were investigated for **antibodies** to human papilloma virus (HPV) early proteins E4, **E6** and E7 and the major capsid protein LI by Western blot analysis of recombinant HPV proteins. There was a significantly higher prevalence of sera with **antibodies** to **E6** in cervical cancer patients than in healthy individuals or in CIN or non-genital-cancer patients. **Antibodies** to E7 were detected in 25% of cervical-cancer patients, which is significantly higher

than in HPV-associated cervical lesions or in control populations, but not significantly different from the incidence in patients with non-genital cancers. **Antibodies** to LI were found more frequently in CIN, while **antibodies** to E4 had a similar prevalence in cervical-cancer, cervical-dysplasia and non-genital-cancer groups, with 24% in the controls. The inability to **detect antibodies** to **E6** and E7 in the majority of cervical-cancer patients limits the application of this methodology to the monitoring of HPV infection and the development of cervical cancer. However, the latter approach may be useful in combination with other assay systems which allow detection of different, including conformational, epitopes of HPV **E6** and/or E7 recombinant proteins.

CT Check Tags: Female; Human; Support, Non-U.S. Gov't
Adult
Aged
***Antibodies, Viral: IM, immunology**
Blotting, Western
Cervix Diseases: IM, immunology
Cervix Diseases: MI, microbiology
*Cervix Neoplasms: IM, immunology
Cervix Neoplasms: MI, microbiology
Middle Aged
Oncogene Proteins, Fusion: IM, immunology
*Oncogene Proteins, Viral: IM, immunology
*Papillomavirus: IM, immunology
*Tumor Virus Infections: IM, immunology

CN 0 (**Antibodies**, Viral); 0 (**E6** protein, Human papillomavirus type 16); 0 (Oncogene Proteins, Fusion); 0 (Oncogene Proteins, Viral); 0 (oncogene protein E1--E4, Human papillomavirus type 16); 0 (oncogene protein E7, human papillomavirus type 16)

L9 ANSWER 9 OF 11 MEDLINE on STN
AN 93019057 MEDLINE
DN PubMed ID: 1328490
TI Expression of human papillomavirus type 16 **E6** protein by recombinant baculovirus and use for detection of anti-**E6** **antibodies** in human sera.
AU Stacey S N; Bartholomew J S; Ghosh A; Stern P L; Mackett M; Arrand J R
CS Cancer Research Campaign Department of Molecular Biology, Paterson Institute for Cancer Research, Christie Hospital, Manchester, U.K.
SO Journal of general virology, (1992 Sep) 73 (Pt 9) 2337-45.
Journal code: 0077340. ISSN: 0022-1317.
CY ENGLAND: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199211
ED Entered STN: 19930122
Last Updated on STN: 19930122
Entered Medline: 19921104

AB Existing assays to **detect antibodies** to human papillomavirus type 16 (**HPV-16**) proteins in sera from cervical carcinoma patients rely primarily on bacterially produced recombinant proteins or synthetic peptides for use as target antigens. These methods have had limited success in the detection of **antibodies** against the **E6** protein. To produce more authentic **E6** protein for use in serological assays, we have employed a recombinant baculovirus vector to synthesize the protein in insect cells. Cells infected with the vector containing **E6** gene sequences expressed a stable protein doublet comprising 18.5K and 19.1K bands. This protein reacted in Western blots with an antiserum raised against a purified **E6** fusion protein produced in Escherichia

coli. This antiserum, and several others raised against E. coli-derived **E6** fusion proteins, were unable to recognize the baculovirus **E6** protein in radioimmunoprecipitation assays (RIPAs). However, serum from a cervical carcinoma patient readily immunoprecipitated the baculovirus **E6** protein, suggesting that the baculovirus-derived protein represented a realistic antigenic target. A RIPA was developed for the detection of anti-**E6** protein **antibodies** in human sera. The assay was tested on a selected group of sera from carcinoma patients and controls, in comparison with a Western blotting method using bacterial fusion proteins. The baculovirus **E6** protein-based RIPA showed a marked increase in detection rate over the Western blotting method. These findings suggest that serum **antibodies** to **HPV-16 E6** protein may be more prevalent than has previously been shown.

CT Check Tags: Female; Human; Support, Non-U.S. Gov't
***Antibodies, Viral: AN, analysis**
Antigens, Viral: IM, immunology
Baculoviridae: GE, genetics
Base Sequence
Carcinoma: MI, microbiology
Cervix Neoplasms: MI, microbiology
Molecular Sequence Data
*Oncogene Proteins, Viral: BI, biosynthesis
Oncogene Proteins, Viral: GE, genetics
*Papillomavirus: GE, genetics
Precipitin Tests
Radioimmunoassay
Recombinant Proteins: BI, biosynthesis
Recombinant Proteins: IM, immunology
*Tumor Virus Infections: DI, diagnosis
Tumor Virus Infections: GE, genetics
Tumor Virus Infections: IM, immunology

CN 0 (**Antibodies**, Viral); 0 (Antigens, Viral); 0 (**E6** protein, Human papillomavirus type 16); 0 (Oncogene Proteins, Viral); 0 (Recombinant Proteins)

L9 ANSWER 10 OF 11 MEDLINE on STN
AN 92105325 MEDLINE
DN PubMed ID: 1722219
TI Human papillomavirus type 18 **E6** and E7 **antibodies** in human sera: increased anti-E7 prevalence in cervical cancer patients.
AU Bleul C; Muller M; Frank R; Gausepohl H; Koldovsky U; Mgaya H N; Luande J; Pawlita M; ter Meulen J; Viscidi R; +
CS Deutsches Krebsforschungszentrum, Heidelberg, Germany.
SO Journal of clinical microbiology, (1991 Aug) 29 (8) 1579-88.
Journal code: 7505564. ISSN: 0095-1137.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199202
ED Entered STN: 19920302
Last Updated on STN: 19960129
Entered Medline: 19920211

AB **Antibody**-reactive regions on the human papillomavirus type 18 (HPV-18) **E6** and E7 proteins were identified with rabbit polyclonal anti-fusion protein sera by screening of an fd phage expression library containing subgenomic HPV-18 DNA fragments and by testing of overlapping decapeptides representing the **E6** and E7 open reading frames. Peptides comprising the delineated regions (designated **E6** /1 to **E6**/4 and E7/1) were synthesized and used in an enzyme-linked immunosorbent assay (ELISA) to **detect** anti-HPV-18

antibodies in human sera. A total of 232 human serum samples (identical numbers of cervical cancer patients and age-matched controls) collected in Tanzania were tested. Similar prevalences (between 0.8 and 4.3%) of **antibodies** recognizing the different **E6** peptides were found in the sera from tumor patients and controls. With a synthetic 28-mer peptide (designated pepE701) comprising the E7/1 region, a significant difference was found: 10 of 116 tumor serum samples but 0 of 116 control serum samples showed a specific reaction (P less than 0.001). This observation confirms earlier results with **HPV-16** E7 fusion proteins (I. Jochmus-Kudielka, A. Schneider, R. Braun, R. Kimmig, U. Koldovsky, K. E. Schneweis, K. Seedorf, and L. Gissmann, J. Natl. Cancer Inst. 81:1698-1704, 1989). A lower prevalence of anti-HPV-18 E7 **antibodies** was observed when 188 human serum samples collected in Germany from tumor patients and controls were tested (3 of 94 positive in the cancer group; 0 of 94 positive in the control group). The type specificity of anti-HPV-18 E7 **antibodies** was demonstrated when the HPV type found by Southern hybridization in the cervical cancer biopsies was compared with seroreactivity: 4 of 8 serum samples obtained from HPV-18 DNA-positive but 0 of 16 serum samples from HPV-18 DNA-negative tumor patients reacted in the HPV-18 E7 ELISA. In addition, HPV-18-positive sera failed to react in a peptide ELISA with the homologous **HPV-16** E7 region (M. Muller, H. Gausepohl, G. de Martinoff, R. Frank, R. Brasseur, and L. Gissmann, J. Gen. Virol. 71:2709-2717, 1990) and vice versa.

CT Check Tags: Female; Human; Support, Non-U.S. Gov't
Amino Acid Sequence
Antibody Specificity
Bacteriophages: GE, genetics
Base Sequence
Cervix Neoplasms: DI, diagnosis
*Cervix Neoplasms: IM, immunology
Chromosome Mapping
Cloning, Molecular
DNA Probes
Enzyme-Linked Immunosorbent Assay
Epitopes: GE, genetics
Gene Library
Molecular Sequence Data
Oncogene Proteins, Viral: GE, genetics
*Oncogene Proteins, Viral: IM, immunology
Open Reading Frames: GE, genetics
*Papillomavirus: IM, immunology

CN 0 (DNA Probes); 0 (**E6** protein, Human papillomavirus type 18); 0 (E7 protein, Human papillomavirus type 18); 0 (Epitopes); 0 (Oncogene Proteins, Viral)

L9 ANSWER 11 OF 11 MEDLINE on STN
AN 91220701 MEDLINE
DN PubMed ID: 1850917
TI Expression of human papillomavirus proteins in yeast Saccharomyces cerevisiae.
AU Carter J J; Yaegashi N; Jenison S A; Galloway D A
CS Fred Hutchinson Cancer Research Center, Seattle, Washington 98104.
NC CA 35568 (NCI)
CA 42792 (NCI)
CA01391 (NCI)
SO Virology, (1991 Jun) 182 (2) 513-21.
Journal code: 0110674. ISSN: 0042-6822.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals

EM 199106
ED Entered STN: 19910623
Last Updated on STN: 19910623
Entered Medline: 19910606
AB The L1 and L2 proteins of human papillomavirus (HPV) types 1, 6, and 16 and the **E6** and E7 proteins of **HPV 16** were expressed in Saccharomyces cerevisiae. The yeast expressed proteins were readily detected by immune blotting and were generally intact. The HPV 1 L1 and L2 proteins expressed in yeast were indistinguishable from the major and minor capsid proteins purified from HPV 1 virions as judged by gel electrophoresis and immunoblotting. The HPV 6 and **HPV 16** L2 proteins and **HPV 16** E7 proteins were secreted from yeast by fusion to the yeast pre-pro-alpha-factor leader sequence. Following secretion of the **HPV 16** E7 protein a rapid method of purification was developed. The yeast expressed proteins were used as antigen targets to study the human immune response in Western blot assay, ELISA, and immune precipitation. One human serum reacted with intact, but not denatured **HPV 16** L2 proteins, suggesting that the yeast expressed proteins will be useful to **detect antibodies** reactive with conformational epitopes.
CT Check Tags: Human; In Vitro; Support, U.S. Gov't, P.H.S.
Antibodies, Viral: IM, immunology
*Antigens, Viral: GE, genetics
Cloning, Molecular
Gene Expression
Glycoproteins: GE, genetics

> d l11 1-9 all

L11 ANSWER 1 OF 9 MEDLINE on STN
AN 2002057513 MEDLINE
DN PubMed ID: 11783091
TI Detection of HPV in human esophageal cancer in high-incidence area and its correlation with p53 expression.
AU Lu Z; Chen K; Guo M
CS Department of Genetics, Beijing Institute for Cancer Research, Tumor Hospital, Beijing University, Beijing 100034, China.
SO Zhonghua zhong liu za zhi [Chinese journal of oncology], (2001 May) 23 (3) 220-3.
Journal code: 7910681. ISSN: 0253-3766.
CY China
DT Journal; Article; (JOURNAL ARTICLE)
LA Chinese
FS Priority Journals
EM 200203
ED Entered STN: 20020125
Last Updated on STN: 20020324
Entered Medline: 20020322
AB OBJECTIVE: To investigate the association of HPV with the development of esophageal cancer (EC) in a high-incidence area of EC and to elucidate its correlation with p53 overexpression. METHODS: Thirty EC specimens were collected from Anyang, Henan. Four pairs of primers were designed to perform in situ hybridization (ISH) and in situ PCR(ISPCR). Immunohistochemical staining was used to **detect** p53. RESULTS: HPV L1, HPV-16-**E6** and HPV-16-E7 was detected in 10.0%, 60.0% and 63.3% of the EC samples, respectively. The detection rate of **HPV -18-E6** was low(6.7%) and no EBV was detected. Overexpression of p53 was identified in 73.3% EC. With ISH or ISPCR, HPV-16-**E6** was positive in 53.3% of EC. CONCLUSION: The low detection rate of HPV L1 and high detection rate of HPV-16-**E6** and E7 genes suggest that HPV may be partially lost when integrating into tumor cell genome, while **E6** and E7 genes are intact. The results support a role of HPV-16 in the pathogenesis of EC in high incidence area. Although p53 mutation takes an important part in tumor pathogenesis, it is not consistent with the HPV existence in the EC cells.
CT Check Tags: Human
English Abstract
Esophageal Neoplasms: GE, genetics
Esophageal Neoplasms: ME, metabolism
*Esophageal Neoplasms: VI, virology
In Situ Hybridization
*Oncogene Proteins, Viral: AN, analysis
Oncogene Proteins, Viral: GE, genetics
Papillomavirus, Human: CH, chemistry
Polymerase Chain Reaction: MT, methods
*Protein p53: BI, biosynthesis
Protein p53: GE, genetics
CN 0 (**E6** protein, Human papillomavirus type 16); 0 (Oncogene Proteins, Viral); 0 (Protein p53); 0 (oncogene protein E7, human papillomavirus type 16)

L11 ANSWER 2 OF 9 MEDLINE on STN
AN 1998312394 MEDLINE
DN PubMed ID: 9648588
TI The status of human papillomavirus and tumor suppressor genes p53 and p16 in carcinomas of uterine cervix from India.
AU Munirajan A K; Kannan K; Bhuvarahamurthy V; Ishida I; Fujinaga K; Tsuchida N; Shanmugam G
CS Cancer Biology Division, School of Biological Sciences, Madurai Kamaraj

University, India.
SO Gynecologic oncology, (1998 Jun) 69 (3) 205-9.
Journal code: 0365304. ISSN: 0090-8258.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199807
ED Entered STN: 19980723
Last Updated on STN: 19980723
Entered Medline: 19980715
AB OBJECTIVES: Infection with the high-risk strain of human papillomaviruses (HPVs) and the inactivation of the tumor suppressor gene p53 through mutation are important factors in cervical carcinogenesis. To know whether such events would occur in cervical carcinomas of Indians, 43 tumors (consisting of 36 of stage III B and 6 of stage II B) were screened for p53 and p16 gene mutations. METHODS: PCR followed by single-strand conformation polymorphism (SSCP) analysis were used to **detect** mutations in p53 and p16 genes and PCR for the presence of human papillomavirus genome. HPV status was ascertained by PCR amplification of parts of **E6** and E7 genes using primers pU-1M and pU-2R and typing was carried out by restriction analysis. RESULTS: Of the 43 samples analyzed, 4 samples (9%) showed mobility shifts for p53 mutations; PCR products of the p16 gene did not show band shifts in SSCP analysis. HPV DNA was detected in 70% of the 43 samples analyzed: HPV 16 in 23 cases (53%), **HPV 18** in 4 cases (13.3%), and HPV 33 in 1 case (3.3%). Two amplified HPV DNAs that were difficult to type with various restriction enzymes were cloned and the amplified regions were sequenced. One of these was 93% close to HPV 35 and the other was 80% close to HPV 58. Three samples had both p53 mutations and HPV genome. CONCLUSIONS: Our results indicate that HPV 16 infection was more common than **HPV 18**, the p53 mutations and HPV infection were not mutually exclusive events in the genesis of carcinoma of uterine cervix among Indian women, and p16 gene may not play a role in Indian cervical carcinomas.
CT Check Tags: Female; Human; Support, Non-U.S. Gov't
Adult
Aged
Cervix Neoplasms: EP, epidemiology
Cervix Neoplasms: GE, genetics
*Cervix Neoplasms: VI, virology
*DNA, Viral: AN, analysis
*Genes, p16: GE, genetics
*Genes, p53: GE, genetics
Incidence
India: EP, epidemiology
Middle Aged
*Papillomavirus, Human: GE, genetics
*Papovaviridae Infections: EP, epidemiology
Polymerase Chain Reaction
Polymorphism, Single-Stranded Conformational
*Tumor Virus Infections: EP, epidemiology
CN 0 (DNA, Viral)

L11 ANSWER 3 OF 9 MEDLINE on STN
AN 1998050245 MEDLINE
DN PubMed ID: 9388862
TI Human papillomavirus infection and esophageal squamous cell carcinoma.
AU He D; Tsao S W; Bu H
CS Department of Anatomy, Faculty of Medicine, University of Hong Kong.
SO Zhonghua bing li xue za zhi Chinese journal of pathology, (1996 Dec) 25 (6) 351-4.

Journal code: 0005331. ISSN: 0529-5807.
CY China
DT Journal; Article; (JOURNAL ARTICLE)
LA Chinese
FS Priority Journals
EM 199801
ED Entered STN: 19980129
Last Updated on STN: 19980129
Entered Medline: 19980109
AB Human papillomavirus (HPV) infection, especially high risk types HPV 16 and 18, have been studied widely in cervical cancer. However, HPV infection in esophageal cancer has not been well defined. In the present study, immunohistochemistry, PCR and Southern blot hybridization methods were used to **detect** HPV infection in 127 cases of esophageal squamous cell carcinoma. Immunohistochemistry results indicated that the virus was detected frequently in well differentiated carcinoma. The positive rates for BPV and HPV **E6** protein were 60.6% (77/127) and 43% (54/127) respectively. Meanwhile, PCR and Southern hybridization showed that 35.9% (37/103) of esophageal squamous cell carcinomas have HPV DNA, which included 20.4% (21/103) HPV 16 and 7.8% (8/103) **HPV 18**. Of the 103 cases, only 1 had both HPV 16 and **HPV 18** DNA. Our results suggest that HPV infection is present in esophageal squamous cell carcinoma and may play a role in its pathogenesis.
CT Check Tags: Human; Male
Adult
Aged
Aged, 80 and over
Antibodies, Viral: AN, analysis
*Carcinoma, Squamous Cell: VI, virology
DNA, Viral: AN, analysis
English Abstract
*Esophageal Neoplasms: VI, virology
Middle Aged
Oncogene Proteins, Viral: BI, biosynthesis
*Papillomavirus, Human: IP, isolation & purification
*Papovaviridae Infections
*Tumor Virus Infections
CN 0 (Antibodies, Viral); 0 (DNA, Viral); 0 (**E6** protein, Human papillomavirus type 16); 0 (Oncogene Proteins, Viral)

L11 ANSWER 4 OF 9 MEDLINE on STN
AN 95146374 MEDLINE
DN PubMed ID: 7843998
TI [Inverted papilloma and its association with human papillomavirus (HPV). A study with polymerase chain reaction (PCR)].
Das inverte Papillom und seine Assoziation mit dem humanen Papillomvirus (HPV). Eine Studie mit der "polymerase chain reaction" (PCR).
CM Comment in: HNO. 1994 Nov;42(11):663-4. PubMed ID: 7843996
AU Arndt O; Nottelmann K; Brock J; Neumann O G
CS HNO-Abteilung des Marienkrankenhauses, Hamburg.
SO HNO, (1994 Nov) 42 (11) 670-6.
Journal code: 2985099R. ISSN: 0017-6192.
CY GERMANY: Germany, Federal Republic of
DT Journal; Article; (JOURNAL ARTICLE)
LA German
FS Priority Journals
EM 199503
ED Entered STN: 19950316
Last Updated on STN: 19950316
Entered Medline: 19950308
AB Nasal inverted papilloma is usually a benign tumor but is associated with

squamous cell carcinoma in about 10% of cases. To determine the etiological role of human papillomavirus (HPV) in inverted papilloma and to clarify the relationship between the different types of human papillomavirus and malignant transformation, we analyzed retrospectively a series of 29 formalin - fixed, paraffin-embedded cases, 3 of which had squamous cell carcinoma. A highly sensitive and specific modification of the polymerase chain reaction (PCR) was used to **detect** the **E6** gene sequences of HPV 6/11, 16 and 18. HPV was present in 20 of the cases (69%), HPV 6/11 in 14 (48%), HPV 16 in 19 (65%) and both HPV 6/11 and 16 in 13 of the specimens (45%). **HPV 18** was not identified in any specimen. In all three of the squamous cell carcinomas based on inverted papillomas, HPV 6/11 and 16 were detected. These results were in agreement with other studies. While HPV is related etiologically to inverted papilloma, we suggest that HPV 16 may be involved in its malignant transformation.

CT Check Tags: Female; Human; Male; Support, Non-U.S. Gov't
Adult
Aged
Aged, 80 and over
Carcinoma, Squamous Cell: GE, genetics
*Carcinoma, Squamous Cell: PA, pathology
Cell Transformation, Neoplastic: GE, genetics
Cell Transformation, Neoplastic: PA, pathology
Cell Transformation, Viral: GE, genetics
English Abstract
Middle Aged
Nose Neoplasms: GE, genetics
*Nose Neoplasms: PA, pathology
Papilloma, Inverted: GE, genetics
*Papilloma, Inverted: PA, pathology
Papillomavirus, Human: CL, classification
*Papillomavirus, Human: GE, genetics
Papovaviridae Infections: GE, genetics
*Papovaviridae Infections: PA, pathology
*Polymerase Chain Reaction: MT, methods
Retrospective Studies
Tumor Virus Infections: GE, genetics
*Tumor Virus Infections: PA, pathology

L11 ANSWER 5 OF 9 MEDLINE on STN
AN 94064167 MEDLINE
DN PubMed ID: 8244575
TI Serologic response in human papillomavirus-associated invasive cervical cancer.
AU Viscidi R P; Sun Y; Tsuzaki B; Bosch F X; Munoz N; Shah K V
CS Eudowood Division of Infectious Disease, Department of Pediatrics, Johns Hopkins University School of Medicine, Baltimore, MD.
NC R01-CA56514 (NCI)
SO International journal of cancer. Journal international du cancer, (1993 Nov 11) 55 (5) 780-4.
Journal code: 0042124. ISSN: 0020-7136.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199312
ED Entered STN: 19940201
Last Updated on STN: 19940201
Entered Medline: 19931223
AB Human papillomavirus (HPV) transforming proteins **E6** and E7 are uniformly expressed in HPV-associated cervical cancer. Our objective was to measure antibodies to HPV-16 **E6** and E7 proteins in cervical

cancer patients using an assay which would **detect** antibodies to conformational epitopes. Serum specimens obtained from two case-control studies of HPVs and cervical cancer were tested. The studies were performed in Cali, Colombia, South America and in 9 provinces of Spain. Cases consisted of women with invasive cervical cancer associated with HPV-16 or other HPV types and women with HPV-16-associated high-grade cervical intra-epithelial neoplasia (CIN-3). Controls for invasive cases and CIN-3 cases were women who had no cytologic abnormalities and who were matched for age and country of residence. Serum antibodies to HPV-16 **E6** and E7 proteins were detected by radio-immunoprecipitation of in vitro translated proteins. Antibodies to the **E6** and E7 protein were observed among 56% and 43%, respectively, of invasive cases and 1.7% and 4.1%, respectively, of controls. Antibodies to either protein were detected in 72% of sera from invasive cases and 5.8% of sera from controls. High antibody reactivity and antibodies to both proteins were found almost exclusively in invasive cases. The frequency of antibodies to the **E6** protein and the E7 protein among CIN-3 cases did not differ significantly from the CIN-3 controls. Five women with **HPV-18**-associated invasive cervical cancer were negative for serum antibody to HPV-16 **E6** and E7 proteins. Antibodies to HPV-16 **E6** and E7 proteins appear to be partially virus-specific and disease state-specific markers of HPV-associated cervical cancer.

CT Check Tags: Female; Human; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.
*Antibodies, Viral: BL, blood
Case-Control Studies
*Cervical Intraepithelial Neoplasia: IM, immunology
*Cervical Intraepithelial Neoplasia: MI, microbiology
*Cervix Neoplasms: IM, immunology
*Cervix Neoplasms: MI, microbiology
Colombia
Immunosorbent Techniques
Oncogene Proteins, Viral: IM, immunology
*Papillomavirus, Human
Spain

CN 0 (Antibodies, Viral); 0 (**E6** protein, Human papillomavirus type 16); 0 (Oncogene Proteins, Viral); 0 (oncogene protein E7, human papillomavirus type 16)

L11 ANSWER 6 OF 9 MEDLINE on STN
AN 93175190 MEDLINE
DN PubMed ID: 1337817
TI Detection of human papillomavirus DNA in invasive cervical cancers by the polymerase chain reaction and its clinical significance.
AU Kashiwabara K; Nakajima T
CS Second Department of Pathology, Gunma University School of Medicine, Japan.
SO Acta pathologica japonica, (1992 Dec) 42 (12) 876-83.
Journal code: 0372637. ISSN: 0001-6632.
CY Japan
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199303
ED Entered STN: 19930402
Last Updated on STN: 19930402
Entered Medline: 19930323
AB In order to **detect** human papillomavirus (HPV) DNA in invasive cervical cancers, three different polymerase chain reactions to amplify different subgenomic fragments of HPV DNA were carried out on DNA extracted from 93 formalin-fixed and paraffin-embedded tumor tissues.

This study detected HPV DNA in 54 cases (58.1%), which broke down to HPV 16 in 39 (41.9%) cases, **HPV 18** in six (6.4%), HPV 52 in three, HPV 33 in one and unclassified HPV type in the remainder. Histopathologically, squamous cell carcinomas frequently contained HPV 16, whereas, **HPV 18** was present in adenocarcinoma, adenosquamous cell carcinoma and small cell carcinoma of the cervix. Clinicopathological study revealed that HPV 16 and 18 DNA found were more frequently than other HPV subtypes in premenopausal patients. Moreover, **HPV 18** DNA-positive cancers had a relatively high recurrence rate. These results indicate that cervical cancers might be clinically influenced by the difference in subtypes of the infecting HPV.

CT Check Tags: Female; Human; Support, Non-U.S. Gov't
*Adenocarcinoma: GE, genetics
Amino Acid Sequence
*Carcinoma, Squamous Cell: GE, genetics
*Cervix Neoplasms: GE, genetics
*DNA, Viral: AN, analysis
Menopause
Molecular Sequence Data
Oncogene Proteins, Viral: GE, genetics
*Papillomavirus: GE, genetics
*Polymerase Chain Reaction

CN 0 (DNA, Viral); 0 (**E6** protein, Human papillomavirus type 16); 0 (E7 protein, Human papillomavirus type 18); 0 (Oncogene Proteins, Viral); 0 (oncogene protein E7, human papillomavirus type 16)

L11 ANSWER 7 OF 9 MEDLINE on STN
AN 92397155 MEDLINE
DN PubMed ID: 1326129
TI Polymerase chain reaction for producing biotinylated human papillomavirus DNA probes for in situ hybridization.
AU Syrjanen S; Andersson B; Juntunen L; Syrjanen K
CS Department of Pathology, University of Kuopio, Finland.
SO Sexually transmitted diseases, (1992 May-Jun) 19 (3) 140-5.
Journal code: 7705941. ISSN: 0148-5717.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199210
ED Entered STN: 19921023
Last Updated on STN: 19921023
Entered Medline: 19921013

AB Polymerase chain reaction (PCR) was used to produce biotinylated DNA probes for human papillomavirus (HPV) types 16 and 18. The specificity and sensitivity of the probes were tested with in situ hybridization to **detect** HPV DNA in cervical biopsies or cell lines (CaSki, SiHa, and HeLa). The Gene Amp DNA Amplification kit (Perkin-Elmer Cetus, Norwalk, CT) was used to perform PCR according to the manufacturer's instructions, except that dTTP was substituted by different concentrations of biotinylated dUTP (bio-11-UTP). As the template DNA, the DNA extracted either from CaSki or HeLa cells was used. The reaction mixture was taken through up to 40 cycles of amplification in a Perkin-Elmer Cetus Thermal Cycler (Perkin-Elmer Cetus, Norwalk, CT). The highest yield was achieved when the concentrations of dTTP and biotinylated dUTP were 150 microM and 50 microM, respectively. In situ hybridization results compatible with those obtained with biotinylated or radioactively labelled whole genomic HPV DNA probes were demonstrated when primers from **E6**, E7, and L1 ORF of the **HPV 18** were used to produce the biotinylated probe by PCR. With HPV 16, the positive signals were always weaker with the PCR probe than with the whole genomic probe. Overall, the PCR probes might have a lower sensitivity than the whole genomic probes.

The background stain was always stronger with the PCR probes than with the whole genomic probes, especially with HPV 16 probes. There does not seem to be a clear correlation between the sensitivity of PCR probes and the size or nucleotide content of the probe.

CT Check Tags: Comparative Study; Female; Human; Support, Non-U.S. Gov't
Base Sequence
Biotin
Cell Line
Cervix Neoplasms: DI, diagnosis
*DNA Probes: CS, chemical synthesis
DNA Probes: GE, genetics
Molecular Sequence Data
Nucleic Acid Hybridization
*Papillomavirus: GE, genetics
*Polymerase Chain Reaction: MT, methods
Sensitivity and Specificity
*Tumor Virus Infections: DI, diagnosis

RN 58-85-5 (Biotin)

CN 0 (DNA Probes)

L11 ANSWER 8 OF 9 MEDLINE on STN

AN 92148562 MEDLINE

DN PubMed ID: 1664460

TI HPV in full thickness cervical biopsies: high prevalence in CIN 2 and CIN 3 detected by a sensitive PCR method.

AU Arends M J; Donaldson Y K; Duvall E; Wyllie A H; Bird C C

CS Department of Pathology, University Medical School, Edinburgh, U.K.

SO Journal of pathology, (1991 Dec) 165 (4) 301-9.
Journal code: 0204634. ISSN: 0022-3417.

CY ENGLAND: United Kingdom

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 199203

ED Entered STN: 19920405
Last Updated on STN: 19920405
Entered Medline: 19920317

AB A new type-specific, sensitive, non-radioactive assay is described for the detection of human papillomavirus (HPV) DNA in tissues. Sequences within the **E6** gene were amplified by the polymerase chain reaction (PCR), using primer pairs which clearly distinguish HPV types, including those with close sequence homology such as 6b and 11. The amplified DNA products were identified by non-radioactive oligonucleotide hybridization and restriction endonuclease mapping, and the method was sufficiently sensitive to **detect** between 3 and 5 SiHa cells (each containing 1-2 copies of HPV 16 DNA) amongst 10,000 non-HPV-containing cells. Frozen and archival paraffin sections were equally acceptable substrates for the reaction. The assay was applied to frozen sections of full thickness cervical epithelium from 60 cases of cervical intraepithelial neoplasia (CIN) and 24 normal cervical controls. HPV DNA was detected in 60 per cent of cases of CIN 3 and CIN 2, in 25 per cent of cases of CIN 1, and in none of the normal controls. Prevalence of HPV 16 was similar (approximately 50 per cent) in both CIN 2 and CIN 3, and in the whole series HPV 16 was almost five-fold more common than **HPV 18**. Low-risk HPV types were present in 5 per cent of CIN 1, but 0 per cent of CIN 2 and CIN 3 biopsies. The data emphasize the biological similarity of CIN 2 and CIN 3 lesions, and their divergence from CIN 1.

CT Check Tags: Female; Human; Support, Non-U.S. Gov't
Adolescent
Adult
Base Sequence
*Cervix Neoplasms: MI, microbiology

Cervix Neoplasms: PA, pathology
*Cervix Uteri: MI, microbiology
Cervix Uteri: PA, pathology
DNA, Viral: AN, analysis
Middle Aged
Molecular Sequence Data
Papillomavirus: CL, classification
Papillomavirus: GE, genetics
*Papillomavirus: IP, isolation & purification
*Polymerase Chain Reaction: MT, methods
CN 0 (DNA, Viral)

L11 ANSWER 9 OF 9 MEDLINE on STN
AN 92105325 MEDLINE
DN PubMed ID: 1722219
TI Human papillomavirus type 18 **E6** and E7 antibodies in human sera: increased anti-E7 prevalence in cervical cancer patients.
AU Bleul C; Muller M; Frank R; Gausepohl H; Koldovsky U; Mgaya H N; Luande J; Pawlita M; ter Meulen J; Viscidi R; +
CS Deutsches Krebsforschungszentrum, Heidelberg, Germany.
SO Journal of clinical microbiology, (1991 Aug) 29 (8) 1579-88.
Journal code: 7505564. ISSN: 0095-1137.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199202
ED Entered STN: 19920302
Last Updated on STN: 19960129
Entered Medline: 19920211
AB Antibody-reactive regions on the human papillomavirus type 18 (**HPV -18**) **E6** and E7 proteins were identified with rabbit polyclonal anti-fusion protein sera by screening of an fd phage expression library containing subgenomic **HPV-18** DNA fragments and by testing of overlapping decapeptides representing the **E6** and E7 open reading frames. Peptides comprising the delineated regions (designated **E6**/1 to **E6**/4 and E7/1) were synthesized and used in an enzyme-linked immunosorbent assay (ELISA) to **detect** anti-**HPV-18** antibodies in human sera. A total of 232 human serum samples (identical numbers of cervical cancer patients and age-matched controls) collected in Tanzania were tested. Similar prevalences (between 0.8 and 4.3%) of antibodies recognizing the different **E6** peptides were found in the sera from tumor patients and controls. With a synthetic 28-mer peptide (designated pepE701) comprising the E7/1 region, a significant difference was found: 10 of 116 tumor serum samples but 0 of 116 control serum samples showed a specific reaction (P less than 0.001). This observation confirms earlier results with HPV-16 E7 fusion proteins (I. Jochmus-Kudielka, A. Schneider, R. Braun, R. Kimmig, U. Koldovsky, K. E. Schneweis, K. Seedorf, and L. Gissmann, J. Natl. Cancer Inst. 81:1698-1704, 1989). A lower prevalence of anti-**HPV-18** E7 antibodies was observed when 188 human serum samples collected in Germany from tumor patients and controls were tested (3 of 94 positive in the cancer group; 0 of 94 positive in the control group). The type specificity of anti-**HPV-18** E7 antibodies was demonstrated when the HPV type found by Southern hybridization in the cervical cancer biopsies was compared with seroreactivity: 4 of 8 serum samples obtained from **HPV-18** DNA-positive but 0 of 16 serum samples from **HPV-18** DNA-negative tumor patients reacted in the **HPV-18** E7 ELISA. In addition, **HPV-18**-positive sera failed to react in a peptide ELISA with the homologous HPV-16 E7 region (M. Muller, H. Gausepohl, G. de Martinoff, R. Frank, R.

Brasseur, and L. Gissmann, J. Gen. Virol. 71:2709-2717, 1990) and vice versa.

CT Check Tags: Female; Human; Support, Non-U.S. Gov't
Amino Acid Sequence
Antibody Specificity
Bacteriophages: GE, genetics

```
=> d his

     (FILE 'HOME' ENTERED AT 14:57:46 ON 29 NOV 2004)

     FILE 'MEDLINE' ENTERED AT 14:57:53 ON 29 NOV 2004
                E HU Y X/AU
L1            21 S E3
L2             1 S VIRUS AND L1
L3           150 S HPV-16 AND E
L4            10 S DETECT AND L3
L5           150 S HPV-16 AND "E"
L6           786 S HPV-16 AND "E6"
L7        108337 S DETECT OR DETECTING AND L6
L8            41 S DETECT AND L6
L9            11 S ANTIBOD? AND L8
L10          239 S HPV-18 AND "E6"
L11            9 S DETECT AND L10
```

d l9 1-11 all

L9 ANSWER 1 OF 11 MEDLINE on STN
AN 2001557983 MEDLINE
DN PubMed ID: 11604112
TI Generation and characterization of monoclonal **antibodies** against the **E6** and E7 oncoproteins of HPV.
AU Wlazlo A P; Giles-Davis W; Clements A; Struble G; Marmorstein R; Ertl H C
CS The Wistar Institute, Philadelphia, PA 19104, USA.
SO Hybridoma, (2001 Aug) 20 (4) 257-63.
Journal code: 8202424. ISSN: 0272-457X.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200201
ED Entered STN: 20011018
Last Updated on STN: 20020125
Entered Medline: 20020117
AB Generation of three monoclonal **antibodies** (MAbs) to the major oncoproteins of human papillomavirus (HPV) was accomplished by an intense prime/boost regimen. Mice were primed with expression vectors expressing either the **E6** or E7 oncoproteins of **HPV-16** followed by boosting with a vaccinia virus construct and a replication-defective E1-deleted adenoviral recombinant of the human strain 5, and last, with baculovirus-derived **HPV-16** **E6** and E7 proteins in incomplete Freunds' adjuvant. Splenocytes were then fused with a myeloma cell line. The vaccination protocol generated one anti-E7 MAb of the IgM isotype and two anti-**E6** MAbs of the IgG1 subisotype. The MAbs were tested for functionality in standard laboratory assays and found to **detect** the **E6** and E7 proteins, respectively. The E7 MAb cross-reacted with the HPV-1a E7 oncoprotein. The binding sites of the MAbs were mapped to defined regions of each viral protein.
CT Check Tags: Female; Human; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.
Amino Acid Sequence
Animals
Antibodies, Monoclonal: AN, analysis
***Antibodies, Monoclonal: BI, biosynthesis**
Antibodies, Viral: AN, analysis
***Antibodies, Viral: BI, biosynthesis**
Antibody Formation
*Antigens, Viral: IM, immunology
Blotting, Western
Cells, Cultured
DNA Primers: CH, chemistry
Enzyme-Linked Immunosorbent Assay
Epitope Mapping
Mice
Mice, Inbred BALB C
Mice, SCID
Molecular Sequence Data
*Oncogene Proteins, Viral: IM, immunology
Oncogene Proteins, Viral: IP, isolation & purification
*Papillomavirus: IM, immunology
Peptide Fragments: IM, immunology
Polymerase Chain Reaction
Sequence Homology, Amino Acid
CN 0 (**Antibodies**, Monoclonal); 0 (**Antibodies**, Viral); 0 (Antigens, Viral); 0 (DNA Primers); 0 (**E6** protein, Human papillomavirus type 16); 0 (Oncogene Proteins, Viral); 0 (Peptide

d 12

L2 ANSWER 1 OF 1 MEDLINE on STN
AN 94306962 MEDLINE
DN PubMed ID: 8033617
TI Diagnosis between condyloma acuminatum and pseudocondyloma in lower female genital tract as determined by a PCR-based method.
AU Fu Y L; **Hu Y X**; Lin H L
CS Guangzhou Maternal and Neonatal Hospital.
SO Zhonghua fu chan ke za zhi, (1994 Jan) 29 (1) 16-8, 59-60.
Journal code: 16210370R. ISSN: 0529-567X.
CY China
DT (CLINICAL TRIAL)
Journal; Article; (JOURNAL ARTICLE)
(RANDOMIZED CONTROLLED TRIAL)
LA Chinese
FS Priority Journals
EM 199408
ED Entered STN: 19940825
Last Updated on STN: 19940825
Entered Medline: 19940812

=> d l2 ab

L2 ANSWER 1 OF 1 MEDLINE on STN
AB From Jan. 1990-Aug. 1992, 616 patients with papillomatous growth of the lower female genital tract (the nodular type 307 cases, the papular type 309 cases) were investigated as determined by a PCR (polymerase chain reaction)-based method, associated with immunohistochemistry avidin biotin complex (ABC), electron microscopy, histopathology, colposcopy and clinical follow-up. The PCR is the most sensitive and specific method. Using PCR the HPV DNA 6.11.16.18.33 were positive in 97.90% of the nodular type. However HPV DNA were positive in 1.10% of the papular type. In the patients with both type, HPV DNA were also positive in nodular, but negative in papular. In the nodular type the HPV-Ag present in 53.55% by ABC method, the koilocytes were 70.49% by microscopy, HPV particles were seen in 5 out of 85 samples by electron microscopy. So that the nodular type (typical cauliflower like) is genital warts (condyloma acuminatum) by HPV infection. The papular type (typical papular or finger like) growth on the mucosal surface of the labia minora of lower vagina. They were negative for HPV DNA, HPV-Ag, HPV particles and koilocytes. On follow-up observation for 3 months to 2 years they had not developed to nodular type and no sexually transmitted feature was observed. The papular type is pseudocondyloma.

Fragments); 0 (oncogene protein E7, human papillomavirus type 16)

L9 ANSWER 2 OF 11 MEDLINE on STN
AN 1998240895 MEDLINE
DN PubMed ID: 9570998
TI **HPV-16**-related proteins as the serologic markers in cervical neoplasia.
AU Park J S; Park D C; Kim C J; Ahn H K; Um S J; Park S N; Kim S J; Namkoong S E
CS Department of Obstetrics and Gynecology, Catholic University Medical College, Catholic Cancer Center, Seoul, Korea.
SO Gynecologic oncology, (1998 Apr) 69 (1) 47-55.
Journal code: 0365304. ISSN: 0090-8258.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199805
ED Entered STN: 19980529
Last Updated on STN: 19990129
Entered Medline: 19980519
AB OBJECTIVE: Recently, a variety of HPV-related proteins have been synthesized and their utility as diagnostic and prognostic markers in cervical cancers needs to be assessed. The ability to generate preparative amounts of **HPV-16** L1/L2 VLPs and **E6**, E7 proteins may have implications for the development of a serologic assay to **detect** anti-**HPV-16** virion immune responses. The purpose of the study is to improve the way of proper management of the cervical cancer by investigating the utility of the recently developed **HPV-16** L1/L2 VLPs, **HPV-16 E6**, E7 proteins as the clinical serologic markers through **antibody** reactions by comparison with those of SCCA and CEA which have been used as tumor markers for cervical cancer. METHODS: The serologic responses in Korean women with cervical neoplasia by ELISA using **HPV-16** L1/L2 VLPs and radioimmunoprecipitation assay (RIPA) using in vitro translated **HPV-16 E6**, E7 proteins were investigated. PCR using **E6** type-specific primers for **HPV-16**/18 was used to determine the presence and type of HPV infection (normal controls, 15 cases; preinvasive lesions, 28 cases; invasive cervical cancers, 124 cases). RESULTS: The sera of 34% (42/124) of cervical cancers were positive for SCCA and the sera of 18% (22/124) of cervical cancers were positive for CEA. The positivity of SCCA was increased with advancing clinical stages, but the **antibody** levels were not correlated with clinical stage of disease. The sera of 7% (1/15) of normal controls, 39% (11/28) of preinvasive lesions, and 56% (70/124) of patients with cervical cancer were ELISA positive for **HPV-16** L1/L2 VLPs ($P < 0.05$). The sera of 7% (2/28) of preinvasive lesions and 51% (63/124) of cervical cancers were positive for in vitro translated **HPV-16 E6** protein ($P < 0.05$) and the sera of 11% (3/28) of preinvasive lesions and 33% (41/124) of cervical cancers were positive for in vitro translated **HPV-16** E7 protein ($P < 0.05$). The **antibody** levels to **HPV-16** E7 protein were correlated to clinical stage and tumor burden in a significant number of cervical cancers. CONCLUSIONS: These data suggest that a considerable number of patients with cervical neoplasia generated positive **antibody** response to L1/L2 VLPs and in vitro translated **E6**, E7 proteins of **HPV-16**. These **HPV-16**-associated proteins might be disease-specific markers which could be useful in an adjunctive diagnostic assay and a seroepidemiologic study of HPV-related cervical neoplasia. In particular, the monitoring of **antibody** to **HPV-16** E7

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☐ 1. Document ID: SU 1731336 A1

L14: Entry 1 of 3 File: DWPI May 7, 1992

DERWENT-ACC-NO: 1993-132331
DERWENT-WEEK: 199316
COPYRIGHT 2004 DERWENT INFORMATION LTD
TITLE: Automated line for horizontal metal tubes, etc. pressing - has blanks cutter coaxial with induction heating furnace and horizontal press

INVENTOR: BREITBURD, A M; KUKUSHKIN, V A ; LAPIN YU, V

PRIORITY-DATA: 1989SU-4772923 (December 22, 1989)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
SU 1731336 A1	May 7, 1992		004	B21C023/00

INT-CL (IPC): B21C 23/00

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw D

☐ 2. Document ID: WO 8701375 A, FR 2586428 A, EP 235187 A, PT 83255 A, DK 8702089 A, JP 63500662 W, ES 2003339 A, CA 1279276 C, EP 235187 B, DE 3682893 G, JP 08308597 A, JP 2755574 B2, JP 10114677 A, JP 2818745 B2, JP 11023577 A, US 5885770 A, DK 172647 B, US 5919615 A, US 5955260 A, US 6010704 A, JP 3067734 B2, JP 3294787 B2

L14: Entry 2 of 3 File: DWPI Mar 12, 1987

DERWENT-ACC-NO: 1987-079685
DERWENT-WEEK: 200245
COPYRIGHT 2004 DERWENT INFORMATION LTD
TITLE: Kit contg. polypeptide(s) expressed by several Gps. of papilloma virus - and similar kits contg. derived antibodies, useful in vaccines, diagnosis and treatment

INVENTOR: BREITBURD, F; CROISSANT, O ; KOMLY, C A

PRIORITY-DATA: 1985FR-0012750 (August 26, 1985), 1995US-0466693 (June 6, 1995)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
WO 8701375 A	March 12, 1987	F	073	
FR 2586428 A	February 27, 1987		000	

EP 235187 A	September 9, 1987	F	000	
PT 83255 A	September 30, 1987		000	
DK 8702089 A	June 26, 1987		000	
JP 63500662 W	March 10, 1988		000	
ES 2003339 A	November 1, 1988		000	
CA 1279276 C	January 22, 1991		000	
EP 235187 B	December 11, 1991		000	
DE 3682893 G	January 23, 1992		000	
JP 08308597 A	November 26, 1996		026	C12Q001/68
JP 2755574 B2	May 20, 1998		027	A61K039/12
JP 10114677 A	May 6, 1998		024	A61K039/12
JP 2818745 B2	October 30, 1998		027	G01N033/569
JP 11023577 A	January 29, 1999		021	G01N033/569
US 5885770 A	March 23, 1999		000	C12Q001/70
DK 172647 B	April 6, 1999		000	C07K014/025
US 5919615 A	July 6, 1999		000	C12Q001/70
US 5955260 A	September 21, 1999		000	C12Q001/70
US 6010704 A	January 4, 2000		000	A61K039/12
JP 3067734 B2	July 24, 2000		021	G01N033/569
JP 3294787 B2	June 24, 2002		025	C12Q001/68

172647 B INT-CL (IPC): A61K 39/12; A61K 39/395; C07H 21/04; C07K 14/025; C07K 15/00; C07K 16/08; C12N 15/00; C12N 15/09; C12P 21/00; C12P 21/06; C12P 21/08; C12Q 1/02; C12Q 1/68; C12Q 1/70; G01N 33/56; G01N 33/569; G01N 33/574 ; C12P 21/00; C12R 1/19; C12N 15/09; C12R 1/92; C12P 21/00; C12R 1/19; C12P 21/00; C12R 1/19; C12P 21/00; C12R 1/19; C12P 21/00; C12R 1/19

☐ 3. Document ID: EP 174228 A, FR 2568682 A, JP 61070465 A

L14: Entry 3 of 3 File: DWPI Mar 12, 1986

DERWENT-ACC-NO: 1986-070722
DERWENT-WEEK: 198611

TITLE: Diagnostic detection of human papilloma virus - by immune reaction with monoclonal antibody specific for a single virus type

INVENTOR: BREITBURD, F; GUILLEMIN, M C ; ORTH, G ; PERIES, G ; POTHIER, P ; ROSETO, A

PRIORITY-DATA: 1984FR-0012226 (August 1, 1984)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
EP 174228 A	March 12, 1986	F	017	
FR 2568682 A	February 7, 1986		000	
JP 61070465 A	April 11, 1986		000	

INT-CL (IPC): A61K 39/39; C07K 15/00; C12N 5/00; C12N 7/00; C12N 15/00; C12P 21/00; G01N 33/56

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw. De

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☐ 1. Document ID: US 6734173 B1

L23: Entry 1 of 45 File: USPT May 11, 2004

US-PAT-NO: 6734173
DOCUMENT-IDENTIFIER: US 6734173 B1

TITLE: HSP DNA vaccines

DATE-ISSUED: May 11, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Wu; Tzyy-Choou	Stevenson	MD		
Hung; Chien-Fu	Brookeville	MD		

US-CL-CURRENT: 514/44; 536/23.5

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw De

☐ 2. Document ID: US 6723317 B2

L23: Entry 2 of 45 File: USPT Apr 20, 2004

US-PAT-NO: 6723317
DOCUMENT-IDENTIFIER: US 6723317 B2

TITLE: Antibodies specific for seroreactive regions on HPV 16 protein E1

DATE-ISSUED: April 20, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Muller; Martin	Heidelberg			DE
Gissmann; Lutz	Wiesloch			DE

US-CL-CURRENT: 424/130.1; 424/186.1, 424/204.1, 435/345, 435/7.9, 530/300

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw De

☐ 3. Document ID: US 6657055 B2

L23: Entry 3 of 45 File: USPT Dec 2, 2003

US-PAT-NO: 6657055
DOCUMENT-IDENTIFIER: US 6657055 B2
**** See image for Certificate of Correction ****

TITLE: Induction of a Th1-like response in vitro

DATE-ISSUED: December 2, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Siegel; Marvin	Blue Bell	PA		
Chu; N. Randall	Victoria			CA
Mizzen; Lee A.	Victoria			CA

US-CL-CURRENT: 536/23.72; 435/69.7

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw. D

☐ 4. Document ID: US 6605281 B1

L23: Entry 4 of 45 File: USPT Aug 12, 2003

US-PAT-NO: 6605281
DOCUMENT-IDENTIFIER: US 6605281 B1

TITLE: Human papillomavirus vectors for the episomal transduction of host cells and method of making same

DATE-ISSUED: August 12, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Broker; Thomas R.	Mountain Brook	AL		
Chow; Louise T.	Mountain Brook	AL		
Sorscher; Eric J.	Birmingham	AL		
Zou; Nianxiang	Homewood	AL		
Gadi; Vijayakrishna K.	Birmingham	AL		

US-CL-CURRENT: 424/199.1; 424/204.1, 435/235.1, 435/252.3, 435/320.1, 435/325, 435/69.1, 536/23.1, 536/23.72

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw. D

☐ 5. Document ID: US 6599508 B1

L23: Entry 5 of 45 File: USPT Jul 29, 2003

US-PAT-NO: 6599508
DOCUMENT-IDENTIFIER: US 6599508 B1

TITLE: Papilloma virus-like particles, fusion proteins as well as processes for their production

DATE-ISSUED: July 29, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Gissmann; Lutz	Willowbrook	IL		
Zhou; Jian	Willowbrook	IL		
Muller; Martin	Chicago	IL		
Painstil; Jeanette	Westchester	IL		

US-CL-CURRENT: 424/204.1; 424/184.1, 424/186.1, 424/205.1, 435/69.1, 435/69.3, 536/23.72

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw De

☐ 6. Document ID: US 6531127 B2

L23: Entry 6 of 45 File: USPT Mar 11, 2003

US-PAT-NO: 6531127
DOCUMENT-IDENTIFIER: US 6531127 B2

TITLE: Antibodies that specifically react with seroreactive regions on HPV 16 proteins E1 and E2

DATE-ISSUED: March 11, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Muller; Martin	Heidelberg			DE
Gissmann; Lutz	Wiesloch			DE

US-CL-CURRENT: 424/130.1; 424/147.1, 424/159.1, 424/186.1, 424/204.1, 435/345, 435/5, 435/7.9, 435/7.91, 530/300

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw De

☐ 7. Document ID: US 6500641 B1

L23: Entry 7 of 45 File: USPT Dec 31, 2002

US-PAT-NO: 6500641
DOCUMENT-IDENTIFIER: US 6500641 B1

TITLE: Compositions and methods for identifying antigens which elicit an immune response

DATE-ISSUED: December 31, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Chen; Si-Yi	Pearland	TX		
You; Zhaoyang	Houston	TX		

US-CL-CURRENT: 435/69.1; 424/159.1, 435/6, 530/387.3, 530/388.3

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw De

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☐ 8. Document ID: US 6485728 B2

L23: Entry 8 of 45 File: USPT Nov 26, 2002

US-PAT-NO: 6485728
DOCUMENT-IDENTIFIER: US 6485728 B2

TITLE: Formalin-Inactivated human papillomavirus L1 protein vaccine

DATE-ISSUED: November 26, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Schlegel; C. Richard	Rockville	MD		
Jenson; A. Bennett	Rockville	MD		
Ghim; Shin-je	Washington	DC		

US-CL-CURRENT: 424/204.1; 424/184.1, 424/186.1, 424/199.1, 536/23.72

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw De

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☐ 9. Document ID: US 6482588 B1

L23: Entry 9 of 45 File: USPT Nov 19, 2002

US-PAT-NO: 6482588
DOCUMENT-IDENTIFIER: US 6482588 B1

TITLE: Detection and identification of human papillomavirus by PCR and type-specific reverse hybridization

DATE-ISSUED: November 19, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Van Doorn; Leen-Jan	Ridderkerk			NL
Quint; Wim	Nootdorp			NL
Kleter; Berhnard	Delft			NL
TerSchegget; Jan	Amsterdam			NL

US-CL-CURRENT: 435/5; 435/6, 435/91.1, 536/24.32

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw D

☐ 10. Document ID: US 6478749 B1

L23: Entry 10 of 45 File: USPT Nov 12, 2002

US-PAT-NO: 6478749
DOCUMENT-IDENTIFIER: US 6478749 B1
**** See image for Certificate of Correction ****

TITLE: Diagnostic kit for skin tests, and method

DATE-ISSUED: November 12, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Hopfl; Reinhard	Innsbruch			AT

US-CL-CURRENT: 600/556; 206/569

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw D

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E6 and HPV 16.clm.	45

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